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ABSTRACT

Economic theories of legal compliance emphasize legal sanctions, while psychological and sociological theories stress the perceived legitimacy of law. Without disputing the importance of either mechanism, we test a third way that law affects behavior, an expressive theory that claims law influences behavior by creating a focal point around which individuals coordinate. The focal point theory makes three claims: (1) that the need for coordination is pervasive because "mixed motive" games involving coordination model common disputes; (2) that, in such games, any third-party cheap talk that calls the players' attention to a particular equilibrium tends to produce that equilibrium; and (3) that law, by publicly endorsing a particular equilibrium, tends to call the players' attention to that outcome. After explaining the first and third claim, we offer an experimental test of the second. Specifically, we investigated how various forms of third party cheap talk influence the behavior of subjects in a Hawk/Dove or Chicken game. Despite the players' conflicting interests, we found that messages highlighting one equilibrium tend to produce that outcome. This result emerged when the message was selected by an overtly random, mechanical process, and also when it was delivered by a third-party subject; the latter effect was significantly stronger than the former only when the subject speaker was selected by a merit-based process. These results suggest that, in certain circumstances, law generates compliance not only by sanctions and legitimacy, but also by facilitating coordination around a focal outcome.

I. INTRODUCTION

Chwe (2001) explains social rituals by their ability to generate the common knowledge needed to solve a coordination game. He gives many examples of how rituals work as "common knowledge generators," including those that publicize the power and authority of the state. But Chwe omits what we think is one of the more interesting examples of his theory: the ritual of law. While law-and-economics theorists tend to view law as facilitating cooperation, we believe that another important but neglected function of law is to generate the common knowledge necessary for individuals to *coordinate*. Because of the publicity commonly given to and expected for law, legal pronouncements can create common knowledge about governmental expectations. Even aside from the sanctions government may use to enforce its expectations, the mere knowledge of legal pronouncements will often create a "focal point" that influences the behavior of individuals in a coordination game. Broadcasting the legal rule "drive on the right," for example, is likely to prompt compliance independent of the threat of legal sanctions.

It is exceedingly easy to overlook this coordinating power of law. One reason is that two other explanations have long dominated theory and empiricism on the subject of legal compliance. Most economic analysis assumes that *sanctions* are the sole mechanism by which law achieves compliance (via deterrence or incapacitation), while most psychological and sociological theories emphasize the perceived *legitimacy* of law as the primary explanation for compliance (via social and institutional reinforcement of moral norms). The debate between these camps obscures the possibility of any alternative. In addition, the common joinder of law with sanctions and legitimacy makes it extraordinarily difficult to discern whether law has a power independent of these forces. Finally, even if one is prepared to look beyond the two

prevailing theories, the problem of coordinating among multiple equilibria stands a bit outside the mainstream of game theory that is applied to law. Indeed, many law-and-economics scholars think of coordination as relevant to only a narrow domain of social life that does not include the conflict that law seeks to resolve.

Despite this resistance, a few theorists have offered coordination as another mechanism for generating legal compliance, a third reason why people obey the law (Cooter 1998; Hay & Shleifer 1998, p.400-401; Lessig 1995, p.1016; Posner 2000, p.177-79; McAdams 2001a). These coordination explanations employ rational choice tools, and, like other economic theories, avoid complex notions of legitimacy. Despite these differences from psychological and sociological approaches, however, coordination theories similarly conclude that law can generate *some* compliance *expressively*, apart from its sanctions.[1] Without denying the power of sanctions or legitimacy, the coordination explanation claims that law influences behavior independently of either.

There has, however, been little empirical testing of these novel theories. Though several experiments document the power of recommendations in "conflict-free" coordination games (where subjects agree on what equilibrium is best), law commonly addresses coordination situations with genuine conflict (where subjects rank the equilibria differently). There has been almost no testing of the claim that mere "cheap talk" from third parties can influence behavior in such games. To remedy this gap, we conducted an experiment to examine whether and how cheap talk messages influence play in a Hawk/Dove Game. Here, we present our findings, which

[1] There are also rational choice explanations of the expressive power of law that do not rely on coordination. E.g. Dharmapala & McAdams 2003; Funk 2002; Kahan 2000; McAdams 2000b. And, of course, there are theories of the law's expressive effect that do not rely on rational choice. See Nadler 2002, Robinson & Darley 1997, Sunstein

support the claim that third-party expression can by itself influence behavior in coordination situations that model legal disputes. We emphasize two points about the relationship of the current study to the larger topic of legal compliance. First, by testing an expressive theory, we do not imply a rejection of compliance theories that emphasize sanctions or legitimacy. Second, by testing a coordination theory, we do not imply a rejection of other expressive theories. Indeed, we identify below the limited domain in which coordination theories apply.

This paper proceeds as follows. Section II sets forth the coordination explanation of expressive law, particularly the "focal point" theory. Section III reviews the relevant empirical literature on the subject. Section IV describes our experiment. Section V concludes.

II. COORDINATION THEORIES OF EXPRESSIVE LAW

A. Background on Coordination Games and Focal Points

Coordination theories of expressive law apply only in situations of multiple equilibria. Most law-and-economics analysis considers the problem of multiple equilibria only as it arises in iterated versions of the *n*-person prisoners' dilemma. But the need to coordinate among multiple equilibria is more general. A common illustration of a *pure* coordination game is the choice between driving on the left or right side of the road. There are two pure strategy equilibria with identical payoffs – where everyone drives on the left and where everyone drives on the right. But the fact that all individuals share some interest in avoiding the non-coordinated outcome – where some drive left and others right – does not guarantee coordination.

Games with multiple equilibria provide a useful context for studying expressive effects

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1996.

because, by definition, a player's choice of strategy is not fully determined by the payoffs. Instead, Schelling (1960) observed that *any feature* of a coordination equilibrium that draws attention to itself, making it "stand out" among the equilibria, will tend to produce self-fulfilling expectations that this salient equilibrium will result. Players tend to select an equilibrium that is "unique" in some non-payoff dimension merely because that uniqueness, when sufficiently plain, causes each player to expect every player to focus on it. For example, Schelling asked New Haven residents to name the place and time they would meet someone in New York City on a given day, if they had failed to communicate more specifically on the subject. Though there is an extremely large number of possibilities, over half the individuals named the same place – Grand Central Station – and almost everyone named the same time – noon. Later experiments confirm that, where nothing in the mathematical structure of the game favors any single outcome, a non-payoff feature that makes one equilibrium psychologically "focal" tends to cause individuals to choose the strategy that produces that equilibrium. (See Mehta et al. 1994).

In pure coordination games, the simplest way to create a focal point is by communication and agreement. Many experiments demonstrate that the players can increase their level of coordination in such games by engaging in "cheap talk": costless, non-binding, and non-verifiable communication. (Crawford 1998 provides a review.) Schelling (1960), however, was interested in cases where the individuals could not communicate and/or could not agree. In such cases, he claimed, a *third party* could create a focal point merely by *suggesting* a possible solution. His example of third-party influence in a pure coordination game was a prominent sign posted throughout a department store that suggests where lost parties should reunite. Even though parties may not have agreed in advance to follow the sign's suggestion, we can imagine

that, once lost, they would gladly obey it.

For law, however, the crucial question is whether third-party suggestions can influence behavior outside of *pure* coordination games. Games of pure coordination (such as the choice between driving on the left or right or where to meet when lost) are rare. Their rarity probably explains why theorists slight the value of coordination to law. But an element of coordination is present in common situations that Schelling called "mixed motive" games. In games such as Hawk/Dove (discussed below), each player prefers every equilibrium outcome to at least one non-equilibrium outcome, but individuals rank the equilibria differently. Thus, there is conflict because one individual's favored equilibrium is another individual's disfavored equilibrium. But there is a shared interest in coordinating to avoid a non-equilibrium outcome.

With mixed motive games, it is less certain that communication between players will facilitate coordination (because each individual may use cheap talk merely to insist upon his or her own preferred outcome). Schelling claimed, however, that third-party cheap talk could still provide a solution to such games. He offers this example: imagine the effect of a bystander who steps into an intersection to direct traffic when the traffic light is broken. Drivers approaching an intersection on different roads each want to coordinate to avoid a collision, but each prefers to proceed immediately through the intersection while the other waits. Schelling posits that drivers will tend to obey the hand signals of the bystander, that is, that this third-party's expression will influence behavior even though, as cheap talk, it does not change the payoffs of the individuals in the game.

B. The Focal Point Theory of Expressive Law

McAdams (2000a) claims that law is a type of third-party cheap talk capable of

constructing a focal point around which individuals then coordinate. Like Schelling's department store sign for lost shoppers, a legal pronouncement "Drive on the left" can, *merely by calling attention to one equilibrium*, cause that outcome to stand out from the other, thus raising the probability that individuals will expect others to drive on the left, and thereby inducing everyone to drive on the left, all independent of the threat of sanctions. More importantly, McAdams claims that third-party cheap talk works not only in pure coordination games, but also in mixed motive coordination situations. Here, law works as Schelling's bystander-in-the-intersection directs traffic. By making one outcome salient, legal rules and judgments can guide expectations toward that outcome and influence behavior independent of sanctions. Thus, McAdams controversially claims that legal expression can, by itself, influence the behavior of parties to a *dispute*.

The focal point theory then relies on three empirical claims. The first is that the need for coordination is pervasive because mixed motive games plausibly model common social conflict. The second claim is that, in such games, any third-party expression that calls the players' attention to a particular equilibrium tends to produce that equilibrium. The third claim is that law, by publicly endorsing a particular equilibrium, tends to call the players' attention to that outcome. As we explain below, our experiment tests the *second* of these claims – that salient third-party expression influences behavior in these games. In this section, we explain further the first and third claims, so as to establish the practical relevance of proving the second.

Taking the last point first, McAdams (2000a) claims that law frequently creates widespread publicity for a particular outcome. Law does not always make a required behavior salient, but it often does. We think the claim sufficiently plausible to merit little comment, except

to note the parallel to Chwe's analysis of ritual. The simplest way to create common knowledge among a population is a ritual attended by the entire population. But Chwe (2001) identifies various mechanisms to create common knowledge among a physically dispersed population. (See Chwe 2001, p. 23 (new regime's units of weights and measures), p. 37-60 (advertising), p. 91-92 (morning newspaper)). McAdams' claim is that law often works in the same way. Among the many public messages that compete for individuals' attention, law is typically among the most salient. The processes of creating law and adjudicating legal disputes are public and publicized rituals that can generate common knowledge (of the government's expectation of certain conduct), making salient the outcome the law prescribes.[2]

None of this would matter if the need for coordination were rare. To the contrary, however, we contend that much social conflict can be modeled as a mixed motive game involving an element of coordination. There are many such games, but we illustrate the general point with one example: the *Hawk/Dove* or *Chicken* game. Here, each player chooses between an aggressive strategy – "Hawk" – where one insists on getting one's way – and a passive strategy – "Dove" – where one defers to others. In a two-person version, the game is Hawk/Dove when both players rank the four possible outcomes as follows, starting with the best: (1) playing Hawk against Dove; (2) playing Dove against Dove; (3) playing Dove against Hawk; and (4) playing Hawk against Hawk. The pure strategy equilibria are Hawk/Dove and Dove/Hawk. Figure 1 illustrates. Strategy 1 represents Dove and Strategy 2 represents Hawk.

[2] Other types of expression can produce the same effects. Indeed, law competes with non-legal expression with varying results. McAdams 2000a notes three reasons law is often more influential than competing expression: law is frequently more publicized; the perceived legitimacy of law can make its message "stand out" among other messages; and that, because of the first two effects, legal actors may enjoy a reputation for solving coordination problems, by having accurately forecasted in past cases which equilibrium would emerge.

	C1	C2
R1	1 1	2 0
R2	0 2	-1 -1

Figure 1: A Hawk/Dove or Chicken Game

Hawk/Dove ("HD") models disputes in the following way: When Hawk is played against Dove, the player using the aggressive strategy gains a disputed resource and the other player receives nothing. When Dove is played against Dove, the players divide the resource or allocate it randomly between themselves. When Hawk is played against Hawk, the players "clash" in some costly way. The alternative name for the game, "Chicken," comes from an example where teenagers competing for honor drive their cars directly at each other to see who will "chicken out"; the outcome of two aggressive strategies is a head-on collision. Schelling's cross-roads example is more common. Drivers approaching an intersection from different roads each prefer to proceed first without slowing down, but each realizes that they will collide in the middle if neither slows down.

More generally, a HD game models a dispute if we imagine that the Hawk/Hawk outcome represents a physical fight, mutually embarrassing shouting match, or other costly conflict. Although the outcome of Hawk/Hawk for each player is uncertain – one might win or lose the "fight" – the *expected* value is the worst possible outcome for both players because the cost of fighting is high relative to the value of the disputed resource. This condition is an important limitation: when one or more players value the object in dispute highly enough relative to the costs of "fighting" (because a player values the object so highly or expects to incur so few

costs from fighting), then the game has only one equilibrium and no element of coordination.

But the condition that fighting be mutually regarded as the worst outcome is plausibly satisfied for many disputes. Two neighbors may dispute the precise location of the boundary between their land. It is not hard to imagine that, while each desires the disputed sliver of land, each recognizes that the result of both insisting on their preference is violence that each expects to be more costly than giving in to the preference of the other. Similarly, two individuals sitting in a public place may dispute over whether one of them may light a cigarette. Though each prefers to get his or her way, we can imagine that each expects that the result of both insisting on his or her preference will be a heated row that is worse than giving in to the other. In many disputes, the coordination aspect is that both players wish to avoid Hawk/Hawk. But conflict remains because the players each prefer to play Hawk to the other's Dove.

HD is one of the simplest games of this form,[3] but more complex games capture nuances omitted from the above examples. For example, a single dispute may involve a number of stages of escalating conflict leading up to a final HD game. Or a dispute may involve an indefinite number of rounds, each of which is costly for each player, with the winner being the one willing to stay in the game the longest. (Regarding this "war of attrition" game, see Fudenburg & Tirole 1991; Sugden 1986). Or certain disputes may recur among players who recognize each other, so that they seek in each round to establish a reputation for playing Hawk in future rounds. The key point is that a great many of these games have multiple equilibria where the players mutually prefer to avoid outcomes of the most costly conflict. Thus, in various disputes, there remains an element of coordination. Because the players' strategy choice then depends on expectations not

[3] Another simple example is the Battle of the Sexes game. See Baird, Gertner & Picker (1994, p. 41-42, 302).

entirely determined by the payoffs, there is room for expressive influence.

We assume, therefore, that the law frequently addresses mixed situations of coordination and conflict, and that law frequently makes one equilibrium in such games salient. Now we turn to the final empirical claim: that in these situations, third-party cheap talk (including law) can influence behavior merely by making one outcome salient.

III. THE EFFECT OF EXPRESSION ON COORDINATION: EXISTING LITERATURE

When Schelling (1960) introduced the idea of focal points, he emphasized that this aspect of game theory was inherently empirical, dependent as it is on the shared knowledge and cultural understandings of those in the game. As noted above, plenty of research demonstrates that cheap talk *between the players* in a coordination game will influence the players' behavior. (See Valley, et al. 2002; Crawford 1998; Matthews & Postlewaite 1989). More to the point, some experiments also establish that *third-party* expression can influence behavior in certain coordination situations. (See Bohnet & Cooter 2001; Brandts & MacLeod 1995; Brandts & Holt 1992; Chaudhuri & Graziano 2003; Croson & Marks 2001; Schotter & Sopher 2003; Tyran and Feld 2002; Van Huyck et al. 1992; Wilson & Rhodes 1997). Yet, for two reasons, the existing literature is not entirely adequate to assess whether or how third-party expression influences behavior in the type of situations that law addresses.

The first limitation is the nature of the games employed in existing experiments. As noted above, law frequently addresses conflict. There may be no conflict ex ante – prior to a dispute – when everyone expects to benefit from an efficient legal rule. But the question of legal compliance arises ex post – after a dispute arises – when obeying law involves one party

"winning" and another "losing." The HD game is useful for modeling such a dispute. But there are no existing experiments testing third-party expression in conflict-intensive HD game. Rather than games mixing conflict and coordination, most experiments examining the effect of third-party expression use either pure coordination games, (Wilson & Rhodes 1997, Van Huyck et al. 1992) (game "A"), or games with symmetrical equilibria where the individuals agree on which equilibria is best. (Bohnet & Cooter 2001; Chaudhuri & Graziano 2003; Van Huyck et al. 1992) (game "B"). Where other mixed games are used, they are too complex to model legal disputes, arising in experiments intended to test abstract theories of equilibrium refinement. (See Brandts & McLeod 1995; Brandts & Holt 1992). The one exception is the inter-generational Battle of the Sexes game in Schotter & Sopher (2003), which we discuss below.

The second limitation in existing research is the manner in which the experiments model expression. We think it desirable to break down expression into various components, beginning with the most minimal, and then to determine the contribution each component makes. In particular, the most basic thing expression can do is simply to call attention to a particular outcome; so it would be desirable to know whether this "ostensive" feature exhausts the effect of expression, or whether other features (discussed below) make an important contribution. Yet all existing experiments treat third-party "expression" as an undifferentiated whole.[4]

A few studies merit further discussion. Two explicitly aim to study the expressive effect of law. Bohnet & Cooter (2001) had subjects play a multi-person game similar to "stag hunt" or

[4] Moreover, in most research, the experimenter merely reads the suggestion to the subjects, increasing the possibility of demand characteristics, where subjects comply in an effort to please the experimenter. In the experiment reported here, we instead attempt to carefully involve the subjects in the delivery of messages, following Wilson & Rhodes 1997, Schotter & Sopher 2003, and Tyran & Feld 2002.

"assurance,"[5] where subjects each choose between strategy "L" and "R." In the control condition, many groups failed to achieve the Pareto-optimal equilibrium, in which everyone plays R. In the expressive condition, the payoff for the Pareto-inferior strategy (L) was raised by 20 cents, but this change was offset by a 10% probability that anyone playing this strategy would be "punished" by 200 cents. Bohnet & Cooter found significantly greater play of the Pareto-optimal strategy in this "penalty" condition, even though the expected payoff values of the two strategies are exactly the same as the corresponding strategies in the control condition.

Tyran & Feld (2002) had groups of three subjects play a public goods game. Subjects decided whether to contribute to a public good, where withholding (not contributing) always generated a higher material payoff for an individual than contributing (no matter what other subjects did). In some conditions, subjects voted on a "deduction" rule, knowing that, if a majority voted for the rule, the payoffs for withholding would decline by a certain amount. In one such condition – "mild law" – the deduction was sufficiently small that an individual would still always be materially better off withholding than contributing. Contrary to economic prediction, there was some contribution in all conditions. But in the mild law condition, individual contributions were three times higher than either the control condition (with no deduction) or a condition where the same deduction rule was imposed exogenously, without a vote.

Both experiments demonstrate the potential for experimentally testing the effect of legal expression on behavior. But neither study uses the HD or similar game and neither disaggregates the components of expression. First, Bohnet & Cooter (2001) explicitly test expression in a

[5] Baird, Gertner & Picker (1994) define the related games of assurance and stag hunt at pp. 301 & 315, respectively.

setting like an assurance game, where all players prefer the same equilibrium.[6] Tyran and Feld (2002) offer what seems to be a more strenuous test by using a public goods game where the material payoffs should compel a single behavior contrary to the expression. But we follow Farrell & Rubin (1996, p.113 n.14) in believing that non-material payoffs can change the nature of such games. Considerable evidence suggests that, when material payoffs *appear* to create a single equilibrium (such as zero contribution), some individuals cooperate because they directly gain utility from reciprocating the other subjects' strategy and/or producing a "fair" outcome. (E.g., Fehr, Fishbacher & Gachter 2002; Heinrich et al. 2001, McCabe, Rassenti & Smith 1998). If so, then the *total* payoffs may create an assurance game; these individuals want to contribute if others contribute, but to withhold if others withhold. It is difficult otherwise to explain the contributions Tyran & Feld observed. But if some subjects were playing an assurance game, the knowledge that a majority voted for a deduction rule would encourage contributions because an individual's vote for the rule suggests an intent to contribute (if one is not going to contribute, one is better off without the deduction).

Consider more precisely why the differences between these games matter. In the experiments using the assurance game (or similar games where the players give equilibria the same rank), the expression encourages behavior that will, if all players comply, increase the expected return of *all* players.[7] This point is true both before *and* after the players receive the message: even after receiving the message, each player prefers complying with the message if

[6] In the game, the players rank the two pure strategy equilibria in the same way. They may fail to reach the Pareto-optimal outcome (all R) because the associated strategy (R) is riskier (choosing R when most others choose L pays less than choosing L when most others pick R).

[7] Of course, because the recommended strategy is riskier than the alternative, there remains doubt about whether everyone else will follow the recommendation, which makes the findings interesting.

everyone else does. By contrast, in the HD game, it is only ex ante – before receiving the message – that all players are better off if everyone follows whatever message they receive. Ex post – after the third party speaks – the situation changes. *As in a dispute*, the expression will identify one player as the "loser," who plays Dove against Hawk, and is worse off if everyone complies. To illustrate, given the Figure 1 payoffs, the mixed strategy equilibrium is for each player to choose Hawk or Dove with equal probability. At this equilibrium, the expected payoff for either strategy is .5.[8] If the players instead correlate their strategies with a random event they both observe, like a third party message endorsing one outcome, then they improve their *expected* payoffs to 1.[9] But despite this ex ante improvement, once the expression occurs, the "losing" player expects a payoff of 0 if both players follow the expression – worse than the mixed strategy payoff.[10] This sharp ex post conflict in a HD game makes it a better model of legal disputes and a more strenuous test of the claim that mere expression can influence behavior.

The second point about these two experiments (that explicitly aim to study expressive law) is that they treat legal expression as an undifferentiated whole. Bohnet & Cooter (2001) model legal expression by stating in the experiment instructions that choosing one of the strategies (L) "will be punished" with a given probability of 10%, but exactly offsetting the expected punishment by a general increase in the payoffs for that strategy. Unfortunately, this approach potentially confounds at least two ways in which law may influence expectations: the non-normative effect of simply "pointing to" a particular outcome and the normative effect of

[8] At the mixed equilibrium, playing Dove produces a 50% chance of receiving 1 and a 50% chance of receiving 0, for a net expectation of .5; playing Hawk produces a 50% chance of 2 and a 50% chance of -1, for a net of .5.
[9] Everyone following a message based on a coin flip would give each player a 50% chance of earning 2 (playing Hawk against Dove) and a 50% chance of earning 0 (playing Dove against Hawk), for a total expectation of 1.
[10] One might think the loser "knows" the winner will play Hawk, which means the loser necessarily wants to play Dove. But the winner might also "know" the loser will want to disregard the disadvantageous third party message.

condemning an outcome by labeling part of its payoff a "punishment." Also, embedding normative language in the experiment instructions creates the risk that the behavioral effect derives from the subjects' desire to please the researchers (demand characteristics) rather than the ability of legal expression to influence behavior.[11] Tyran & Feld (2002) ingeniously use voting in their experimental design, which certainly minimizes demand characteristics. But voting itself consists of multiple components, including communication and legitimacy, each of which may independently contribute to creating a focal point.[12]

Finally, Schotter & Sopher (2003) do not seek to study the influence of legal expression, but they are the first to study the effects of third-party cheap talk in a game with genuine conflict. Each of their subjects plays an inter-generational Battle of the Sexes (BOS) game for one round. Players in generation (round) t can offer private, open-ended advice (via a computer screen) to their own "successors" in generation (round) $t + 1$, where each player receives additional payoffs based on how well his or her successor does. Schotter & Sopher find that this advice strongly influences the players who receive it, despite the fact that the information set of the "parent" is "virtually" the same as that of the "child," and despite the fact that the private advice is not common knowledge.

Though we think the HD game models a dispute more intuitively than the BOS game

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Because the message is cheap talk, the outcome is entirely an empirical question.

[11] Finally, there is the possibility that Bohnet & Cooter failed to make the penalty "non-deterring" as they suppose. If the subjects were risk averse, they would regard the uncertainty associated with the penalty -- a 10% chance at a 200 cent fine – as worse than the expected loss of 20 cents. If so, the risky payoffs of the experimental condition may have driven the results.

[12] Moreover, voting for a rule may not be the appropriate model of law in a representative democracy, where citizens usually vote for a leader who then votes for a rule, rather than voting for the rule itself. Indeed, voting may be merely one means of making a leader legitimate, as many law-makers in a democratic society – judges, administrators, etc. – are not directly elected.

(particularly the inter-generational version), Schotter & Sopher's study importantly demonstrates that cheap talk can influence behavior even in games of conflict. Like other experiments, however, they do not disaggregate the components of expression. Their advice combines several features at once: it "points to" a strategy, it represents an intentional choice by the advice-giver, and that advice-giver presumably enjoys significant legitimacy because his or her payoff structure is based on how well the subject does. In addition, Schotter & Sopher did not standardize the expression being used, but allowed subjects to send open-ended messages that could include reasons for the advice given, which may introduce different expressive features across advice. Thus, we are left to wonder which features of the expression were strictly necessary to the result.

In sum, existing experiments do not test expression in the contexts that best model legal disputes, and do not carefully isolate the possibly distinct components of legal expression. Given these limitations, there is much to be learned by further study.

IV. THE EXPERIMENT

In field studies, it is extremely difficult to isolate possible causes of compliance apart from sanctions and legitimacy, much less to identify the particular components of legal expression that may influence behavior. Experiments therefore provide a useful starting point for systematically examining the influence of legal expression on behavior in coordination situations.

A. Method

1. Design

The two crucial parameters for testing the effect of expression are the strategic context and the nature of the expression. As to context, we used a Hawk/Dove Game for the reasons

explained above. We had the subjects play a series of one-shot HD games based on the payoffs of Figure 1, where subjects played no more than once against any other player. As to expression, we sought to disaggregate legal expression into its components, so as to isolate the contribution of each. We identified three ways that legal expression might make a particular outcome focal: *ostension, intentionality,* and *legitimacy*. First, at its most minimal level, any relevant expression is *ostensive*; it "points to" and highlights a particular outcome by proclaiming it. Second, although non-human devices are capable of "pointing to" a particular outcome, law is also *intentional* -- the product of conscious human decisions. Third, actors who pronounce legal rules, at least in a democratic society, tend to enjoy perceived *legitimacy*. Legitimacy may derive from being elected, appointed by others who are elected, or something else. Because each element of expression may plausibly contribute to the ability of law to create a focal point, we began with the first element – ostension – and then built up towards an approximation of legal expression.[13]

We thus contrasted a control condition, where the subjects played the game without receiving any expression other than the instructions, with three treatment conditions. In the first expressive condition, intended to model the minimalist effects of ostension, the experimenter spun a spinner before each round that would "point to" or highlight a particular equilibrium. In the second expressive condition, intended to model the added contribution of intentionality, a randomly selected subject identified as the "leader" recommended a particular outcome for each round. Legitimacy is itself a complex notion with many components. In the third expressive condition, intended to model the added contribution of only some minimal level of legitimacy, a

[13] At the same time, we avoided ever using legalistic expressions about rules or penalties. We did this to avoid demand characteristics, where the subjects infer from the expression that the experimenter desires them to behave in a certain way. In addition, because law enjoys basic legitimacy among our subjects, we wanted to avoid terms that

"leader" selected by merit recommended a particular outcome for each round.[14] Thus, each source of expression adds an additional expressive property to the property introduced by the previous source of expression. The experimental design therefore consisted of one factor with four levels, as illustrated here:

Table 1
Experimental Design

Level	Condition	Expressive Component
1	Control	None
2	Spinner	Ostension
3	Random Leader	Intentionality
4	Merit-Based Leader	Minimal Legitimacy

2. Procedure.

In each session 10-14 subjects played about 9 rounds of the HD Game (the exact number depended on the number of participants in the session). Subjects were randomly assigned to expressive condition based on the session in which they participated.[15] Subjects were promised a $10 showup fee and informed at the outset that they had the opportunity to earn or lose money, depending on their own decisions and the decisions of other participants in the session. Subjects were informed only that the session consisted of "a series of decision making periods," but not the actual number. After the experimental instructions were distributed, the experimenter read them aloud to ensure that the participants shared common knowledge of the instructions. In each

might invoke this legitimacy as a reason to comply.

[14] We describe this selection process in detail below.
[15] Two sessions of 10-14 participants were assigned to each of the four treatment conditions.

round, participants were randomly paired against an anonymous and different participant and were randomly assigned for that round to the role of "R" or "C." Players were paired against one another no more than once. Each counterpart was identified by a randomly assigned number, not by name, and the subjects did not know which identification number was associated with which player. In addition, the experimenter did not know the name of any subject.

In each round, player C had to choose between C1 (Dove) or C2 (Hawk); player R chose between R1 (Dove) or R2 (Hawk).[16] Payoffs were the same as those of Figure 1, where each point represented $1. After each round, each subject was informed of the decision of their "counterpart." Any money they earned or lost was added to (or, if negative, subtracted from) their $10 showup fee. After the last round of the game, participants completed a questionnaire designed to assess their attitudes toward the game and to measure individual characteristics that might have influenced their choice of strategy. Final earnings were then computed by summing each participant's payoffs across all rounds. The experimenter then deposited the showup fee plus or minus the final earnings into an envelope marked with the participant's identification number, and placed the envelopes on a table. On their way out, each participant approached the table one at a time, and picked up the envelope marked with their identification number.

Within each session, all subjects were assigned to the same condition. In the control condition, the participants played the HD game without expressive influence. In the Spinner condition, we used a spinner each round to randomly highlight one equilibrium. The base of the spinner was divided into two equal parts, one of which read "R1/C2" and the other of which read

[16] Note that although we use the designations "Hawk" and "Dove" here for purposes of describing the experiment, we did not use these terms in any of the participants' experimental materials.

"R2/C1." Before beginning the game, all participants in the Spinner condition were instructed as follows:

> Prior to each period, a spinner will be spun in view of everyone. You can see that the spinner will either point to "R1/C2" or "R2/C1." If you wish, you may consider the result of the spin in your decision, in whatever manner you choose. You are also entirely free to ignore it.[17]

In the remaining two expressive conditions, two participants in each session were each selected to act as a "leader" for 5 rounds of the game.[18] We controlled the message that the leader conveyed to ensure that the order of recommendations in the leader conditions exactly matched the random order determined by the spinner in the corresponding spinner condition, thus minimizing the error variance contributed by differences in order of messages. We kept the instructions to the leader confidential, so that the perceived source of the message was the leader (rather than the experimenter). This procedure helped to minimize demand characteristics associated with the experimenter being the source of the message. To provide an incentive to convey the correct message, leaders were paid according to how many dyads in the session followed the message we supplied to them.

In the Random Leader condition, we explicitly used a random process to select the leader. Before beginning the game, the experimenter instructed the subjects as follows:

> You have each been given a ticket when you first arrived at the experiment. In a moment, we will randomly select two ticket numbers from an envelope containing the numbered ticket stubs. Each of the two participants whose ticket numbers are selected will be designated the Leader for a portion of the session. Prior to each period, the Leader will have the opportunity to write a message on the blackboard. If you wish, you may consider the message in your decision, in whatever manner you choose. You are also entirely free to ignore it.

In the Merit-Based Leader condition, we attempted to confer some minimal authority on the

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[17] Our use of the spinner may bring to mind procedures used in a well-known experiment to demonstrate a cognitive heuristic. See Tversky & Kahneman (1982). We discuss the similarities and differences below.

[18] To control for "actor effects" we assigned two different participants to serve as the leader during each session, one for the first half of the session and one for the second half. We analyzed the data to examine whether there were

leader by informing participants that they would take a quiz, and that the two participants with the highest quiz scores would serve as leaders for the remainder of the session. The remainder of the instructions were identical to the above (i.e., they may consider the leader's message but are free to ignore it). The quiz tested participants' knowledge on a topic they were likely to consider of some importance – the results of the state-wide primary election that had recently occurred. Prior research suggested that subjects would perceive one's superior performance on a quiz as entitling him or her to a position of authority within the experiment.[19]

Participants in the experiment were 103 undergraduate students who participated in exchange for a $10 show-up fee. Of these, eight participants served as leaders, and so did not play the Hawk/Dove game. On average, subjects earned $7 in addition to the showup fee. The experiment lasted approximately one hour.

3. Hypotheses. The three expressive components of law we tested in this experiment were ostension, intentionality, and minimal legitimacy. We hypothesized that each component would uniquely contribute to the influence of expression on participants' choice of strategy, as compared to the control. Specifically, we hypothesized: (1) that participants in the treatment conditions would be more likely to choose the recommended strategy than those in the control

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significant differences in compliance based on leader identity; there were none.

[19] Hoffman & Spitzer (1985) had subjects play a bargaining game in which the subject assigned as the "controller" could determine the allocation that would occur if the subjects failed to reach agreement. The method of selecting the controller influenced the subjects' division of the gains from reaching agreement. Assigning the controller to the subject who won a simple game, especially with instructions saying this subject had "earned" the position, produced a division giving significantly more to the controller, compared to the condition where the assignment was based on a coin flip. Similarly, Hoffman, et al. (1994) assigned subjects to a dictator game either randomly or according to a general knowledge quiz. Only 20% of randomly selected dictators allocated $0 to their counterpart, but 40% of dictators selected by high quiz score allocated $0 to their counterpart. Although these experiments necessarily establish only that the person selected by his superior performance will feel entitled to the position to which he or she is assigned, we believe it likely that other subjects will also share this view, and therefore that the leader selected by merit will be perceived to have some minimal moral authority lacking in the randomly selected leader.

(i.e., that expression influences behavior); and (2) that compliance would increase as the message source reflected each additional expressive component (i.e., ostension < intentionality < minimal legitimacy).

B. Results

We designate the strategy indicated by the spinner or the leaders for each round as the *focal strategy* for that round. For convenience, we use the designation "focal strategy" even when describing the control condition, where there was no expression to make a strategy focal. Thus, in the control, "focal strategy" for round *n* means the strategy recommended in the expressive conditions for round *n*. We then count an individual player's strategy choice as "compliance" if it corresponds to the focal strategy for that round. Recall that the focal message recommends one of two sets of strategies: either that Player R play strategy 1 and Player C play strategy 2, or that Player R play strategy 2 and Player C play strategy 1. Because we analyze the data at the level of the individual player, we code as compliance the outcome where the individual player's chosen strategy matches the focal strategy recommended for that individual (or in the control condition, the strategy that would have been recommended had there been a message).

The mean rate of compliance across expressive treatments is illustrated in Table 2. Note that the base rate for compliance in the absence of a message (in the Control condition) is .51, meaning that players choose the same strategy as the one that would have been recommended by the focal message (even in the absence of that message) about half the time.[20] Table 2 also shows that the rate of compliance appears to increase with the addition of each expressive component,

[20] There are two possible explanations for why control condition subjects chose the focal strategy 50% of the time in the absence of any message. One possibility is that control condition subjects were playing the mixed strategy equilibrium for the game (described earlier in section III). Another possibility is that players were not guided by any

as operationalized by each level of treatment. This trend appears to support the two hypotheses set forth earlier: first, that participants in the treatment conditions are more likely to choose the focal strategy than participants in the control condition (i.e., that expression influences behavior),[21] and second, that compliance increases as the message source reflects each additional component.[22]

Table 2
Summary of Data: Compliance Rates Across Treatments and Rounds

Variable	**Mean Compliance Rate**
Control (None)	.51
Spinner (Ostension)	.65
Random Leader (Intentionality)	.74
Merit-Based Leader (Minimal Legitimacy)	.76
Round 1	.70
Round 2	.60
Round 3	.62
Round 4	.70
Round 5	.63
Round 6	.65
Round 7	.62
Round 8	.74
Round 9	.75
Total	.67

1. Hypothesis One (Control v. Treatment). To test whether the addition of expressive

strategy at all but instead were choosing haphazardly between the two choices. In any case, the important question here (which we discuss later) is whether the provision of a message highlighting a particular strategy influences play.

[21] Recall that, for convenience, we use the designation "focal strategy" even when describing the control condition, where there was no expression to make a strategy focal.

[22] Table 2 also reports rates of compliance within each individual round. Note that there appears to be no upward or downward trend in compliance rates over rounds. We test this possibility of learning formally in the next section.

components produced statistically reliable increases in compliance rates we estimated a series of maximum-likelihood probit regressions. The main analysis of interest was whether the addition of each expressive component (operationalized by message source) increased the likelihood of compliance. We also tested a model that included dummy variables for each of the rounds of play, to examine whether compliance changed over time. Each of these independent variables is categorical, and the reported regression coefficients denote the change in the probability that the dependent variable changes from 0 to 1 – that is, the change in probability of compliance. The reported z-statistic (analogous to the t-statistic in ordinary least squares regression) represents the ratio of the probit coefficient to its standard error.

First, we estimated a probit regression model to test the hypothesis that the players in the three treatment conditions (taken together) are more likely to choose the focal strategy than players in the control condition. Table 3 indicates that the Treatment variable is statistically significant, and the hypothesis that participants in the treatment conditions were more likely to choose the focal strategy than participants in the control condition is supported. Receiving a message of any kind (whether by spinner, random leader, or legitimate leader) increases the probability of choosing the focal strategy by .21, compared to receiving no message.

Table 3
Probit Analysis:
Effect of Focal Message Treatment on Compliance

	dF/dx	**Robust SE**	**z**	**P > |z|**
Treatment	.212	.040	5.25	.000

Note: Likelihood ratio test for treatment variable: χ^2 (1) = 27.52; p > χ^2 = .000; dF/dx is for discrete change of dummy variable from 0 to 1; z and P > z tests whether the probit coefficient is equal to zero. N = 828; standard error is adjusted for clustering around subject.

We next examined whether the influence of focal point treatment is robust to whether

Hawk or Dove is the recommended strategy. It could be the case that expression influences players' behavior more strongly when recommending that they play Dove, or conversely, more strongly when recommending that they play Hawk. We estimated a probit model that included both the treatment variable and a dummy variable called "Hawk," that is assigned the value of 1 when the focal strategy recommended that the player choose Hawk, and 0 otherwise. Model 1 in Table 4 indicates that there was a significant difference in compliance when Hawk was the focal strategy, so that players were less inclined to comply when Hawk was recommended compared to when Dove was recommended. At the same time, the Treatment variable remains statistically significant, so that there is greater likelihood of compliance in the Treatment conditions than there is in the control condition, regardless of whether Hawk or Dove was the focal strategy. For each of the focal strategies (Hawk and Dove), the message increased compliance compared to the control condition.

Model 2 examines the interaction of Treatment (whether or not there was a message) and Hawk (whether the message made Hawk focal or Dove focal). There was no statistically significant Treatment x Hawk interaction, suggesting that the magnitude of influence of the message in the Treatment conditions did not depend on whether Hawk or Dove was the focal strategy. Instead, the message was equally as influential when Hawk was the focal strategy as when Dove was the focal strategy – a desirable property for coordination of behavior. Finally, the addition of dummy variables for Round in Model 3 allows us to show that the Treatment effect remains robust while controlling for any possible effects attributable to round of play, a topic to which we return later.

Table 4
Probit Analysis:
Effect of Focal Message Treatment, Message, and Rounds on Compliance

Model		**DF/dx**	**Robust SE**	**Z**	**P > |z|**
1	Treatment	.217	.039	5.46	.000
	Hawk	-.138	.053	-2.61	.009
2	Treatment	.259	.080	3.26	.001
	Hawk	-.073	.115	-0.64	.524
	Trtmt x Hawk	-.088	.132	-0.67	.501
3	Treatment	.263	.082	3.25	.001
	Hawk	-.104	.118	-0.88	.380
	Trtmt x Hawk	-.088	.132	-0.67	.500
	Round 1	.151	.060	2.17	.030
	Round 2	.068	.070	0.92	.359
	Round 3	.082	.065	1.20	.229
	Round 4	.146	.063	2.02	.044
	Round 5	.094	.063	1.38	.167
	Round 6	.112	.066	1.54	.123
	Round 8	.187	.057	2.64	.008
	Round 9	.196	.056	2.79	.005

Next, we estimated a model that included dummy variables for each of the treatment conditions (spinner, random leader, merit-based leader), as well as dummy variables for each of the periods of play. This model allows us to separately compare each of the components of expressive influence to the control condition. The addition of the dummy variables for Round again allows us to examine whether such effects remain robust while controlling for any possible effects attributable to round of play. Table 5 indicates statistically significant effects for each of the three components of expression that were operationalized in the treatment conditions. Compared to the control condition, the probability of choosing the focal strategy increases by .13 when that strategy is made focal through ostension alone (spinner); the probability increases by .21 when that strategy is made focal through ostension and intentionality (random leader); and

the probability increases by .23 when that strategy is made focal through ostension, intentionality, and minimal legitimacy (merit-based leader).[23]

Table 5
Probit Analysis:
Effect of Individual Focal Message Treatments and Rounds on Compliance

Model		**dF/dx**	**Robust SE**	**Z**	**P > |z|**
1	Ostension (Spinner)	.131	.040	3.08	.002
	Intentionality (Random Leader)	.209	.045	3.89	.000
	Minimal Legitimacy (Merit-Based Leader)	.226	.041	4.72	.000
2	Ostension (Spinner)	.132	.040	3.08	.002
	Intentionality (Random Leader)	.211	.046	3.86	.000
	Minimal Legitimacy (Merit-Based Leader)	.227	.041	4.70	.000
	Round 1	-.060	.073	-0.84	.400
	Round 2	-.168	.069	-2.54	.011
	Round 3	-.145	.081	-1.84	.066
	Round 4	-.062	.071	-0.90	.369
	Round 5	-.134	.068	-2.01	.044
	Round 6	-.109	.074	-1.53	.127
	Round 7	-.144	.084	-1.76	.079
	Round 8	-.012	.075	-0.16	.872

Note: Likelihood ratio test for Round variables: χ^2 (8) = 18.15; p > χ^2 = .020. N = 828; standard error is adjusted for clustering around subject.

[23] Note that the dF/dx marginal effects illustrated in Table 5 are very close to differences suggested by the sample means in Table 2. For example, Table 2 suggests a .14 increase in probability of playing the focal strategy in the spinner condition compared to the control condition, a marginal effect very close to that indicated by the .132 dF/dx coefficient for Spinner in Table 5. The marginal effects of Random Leader and Merit-Based Leader shown in Table 5 are also close to the differences in the respective means depicted in Table 2. These similarities suggest that even after controlling for the effects of Round (recall that a few of the coefficients were statistically significant), the treatment coefficients (for Spinner, Random Leader, and Merit-Based Leader) remain essentially unchanged.

2. Round Effects. The model in Table 5 includes dummy variables for individual rounds of play.[24] The probit coefficients for a few of the individual round dummies are statistically significant. In this model, Round 9 is the omitted variable, so that in Rounds 2 and 5 the probability of compliance is less than in Round 9. However, there does not seem to be any discernible trend of increasing or decreasing probability of compliance across rounds. Most important, the treatment dummies are still significant even with the round dummies included in the model, indicating that the effect of treatment is robust to any influence of round.

3. Hypothesis Two (Ostention v. Intentionality v. Minimal Legitimacy). We next tested the hypothesis that compliance increases as the message source reflects each additional expressive component. More specifically, we tested the claim that the probability of choosing the focal strategy is higher when that strategy is made focal through intentionality and ostension (random leader) than through ostension alone (spinner); and that the probability of choosing the focal strategy is higher when it is made focal through minimal legitimacy, intentionality, and ostension (merit-based leader) than through ostension alone (spinner) or intentionality and ostension (random leader). Tests of equality of the probit coefficients (Table 6) indicate that there was a statistically significant difference between spinner and legitimate leader, a marginally significant difference between spinner and random leader, and no detectable difference between random leader and legitimate leader. The hypothesis that addition of each expressive component increases compliance was only partially supported.

[24] Recall that players played about 9 rounds of the game, each against a different opponent.

Table 6
Focal Message Treatments: Tests for Equality of Probit Coefficients

	$\chi^2(1)$	$P > \chi^2$
Random Leader ≠ Spinner	2.30	.129
Merit-Based Leader ≠ Spinner	4.11	.043
Merit-Based Leader ≠ Random Leader	0.07	.791

Finally, we examined players' attitudes about their counterparts' strategy choices. After the last round of the game we administered a questionnaire designed to measure attitudes toward the game and individual characteristics that might have influenced their choices.[25] Participants indicated on a 7-point scale their attitudes about the fairness of their opponents' choices (1= extremely unfair; 7 = extremely fair). We found that whenever the counterpart chose the focal strategy, this was perceived on average as more fair (M = 5.30) than choosing the non-focal strategy (M = 4.54); ($t(72) = 3.98$; $p < .001$). We also found that when the counterpart disregarded the focal strategy, the magnitude of perceived unfairness depended on whether Hawk or Dove was the focal strategy. Specifically, when the focal strategy for the counterpart was Dove but the counterpart ignored the message and played Hawk, this was perceived as considerably less fair than when the reverse occurred (focal strategy was Hawk and counterpart played Dove).[26] It appears that playing Dove is perceived as basically fair regardless of the message, but

[25]None of the individual characteristics we measured predicted choices in the game, so we omit these results for purposes of brevity.

[26] To analyze this question, we first computed a difference score by subtracting fairness of playing Hawk when not recommended (1=Extremely Unfair; 7=Extremely Fair) from fairness of playing Hawk when recommended (M = 1.15). We computed a similar difference score for fairness of playing Dove (M = 0.36). We then used a paired t-test to analyze whether there was a difference between these two difference scores. The difference was significant. t(72)=

playing Hawk is perceived as fair only when authorized by the message.

C. Discussion

The results suggest that third-party cheap talk can, by itself, influence the behavior of individuals in a HD Game. The results are robust across the recommendation (Hawk or Dove) and across round (1-9). That something as arbitrary as a spinner made subjects more likely to choose a particular strategy, compared to the control, suggests that expression can influence behavior ostensively.[27] Merely pointing to an equilibrium appears to increase the salience of that choice, which increases the likelihood that players will choose the strategies producing that equilibrium. That players are likely to choose a strategy that the spinner obviously selects at random suggests that expression influences behavior even when it lacks legitimacy or intentionality. Law influences behavior in many ways, but we infer from this result that, at the most basic level, law also influences behavior ostensively. That is, in coordination situations, law works in part by merely pointing to the prescribed outcome.

When the source of expression was a leader, there was an additional influence of expression on players' choices, over and above the ostensive influence of the spinner. Although

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-4.07; $p < .001$.

[27] There remains a question of the precise mechanism that produces the behavioral influence. Salience might work unreflectively, merely because it causes a certain strategy to be "on the mind" of each subject, or reflectively, because it also causes each subject to expect their counterpart to play the salient strategy. These possibilities correspond to what Mehta et al. 1994 respectively term as "primary" and "secondary" salience. The well-known Anchoring and Adjustment experiment by Tversky & Kahneman 1982 may be interpreted as showing that a random device can work via primary salience. They used a "wheel of fortune" displaying numbers to influence the estimates subjects made in answering quantitative questions. The random number displayed immediately before subjects gave an answer influenced the answer even though it was logically irrelevant. Our experiment does not involve an adjustment process by which the subjects understand that the salient choice is incorrect and insufficiently adjust away from the incorrect choice. Nonetheless, because expectations about other's behavior were irrelevant to answering the questions posed, the Tversky & Kahneman study suggests that salience can work without affecting such expectations. By contrast, Mehta et al. 1994 find that when subjects have an incentive to coordinate, they reason about what others will find salient. Thus, in our experiment, it seems likely that the expression works via

there was no detectable[28] marginal increase in influence of random leader over spinner - mere intentionality adding little to ostension in influencing compliance – there was an increase between merit-based leader over spinner. Apparently, the process of selecting the leader by a quiz on recent political events was sufficient to endow the leader with some minimal form of perceived legitimacy, either because the process was deemed more "fair" or the leader was perceived as more competent or credible. There was no difference between the random and merit-based leader, but it seems plausible that a stronger, more comprehensive manipulation of legitimacy than our political quiz might increase compliance considerably, perhaps significantly more than a random leader.

Finally, it is intriguing that subjects so readily came to equate "fairness" with playing the recommended strategy, even when the recommendation came arbitrarily from a spinner and despite the abstract context of the interaction. We can speculate why. As noted above, all the subjects improve their ex ante (but not ex post) payoffs if they all coordinate their strategies with a random event they both observe, like the spinner, thereby avoiding the possibility of a Hawk/Hawk outcome. We think it possible that many subjects recognized this fact and perceived the method for maximizing their joint returns as "fair." As a result, subjects may have perceived as "unfair" the non-compliance that produces or risks the Hawk/Hawk outcome, i.e., where one plays Hawk contrary to the third-party message. If so, then the experiment suggests an insight into one source of law's "legitimacy" (even though our primary focus is a compliance mechanism other than legitimacy). In situations involving coordination, legitimacy may arise, not because law embodies a community's moral norms, nor because a democratic process produces

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secondary salience, by influencing expectations of what other subjects will do.

the law, but because law provides an arbitrary way to coordinate strategies. It is not (or not merely) that the law reminds or persuades people of their moral obligations, but that people feel obligated in coordination situations to do whatever is, by virtue of its salience, expected of them.

V. CONCLUSION

In this article, we argue that coordination situations involving conflict frequently occur in the real world, and that law can potentially influence behavior in these situations by constructing a focal point. As other public rituals generate common knowledge (Chwe 2001), we have plausibly assumed that law is frequently capable of drawing attention to the equilibrium outcome it prescribes. By publicly announcing a state of affairs (e.g., "No Smoking Here") law can make one of the multiple equilibria salient. We tested whether third-party expression can, by making an outcome salient, influence the behavior of the players in the game. In the Hawk-Dove game we used, each player preferred a different equilibrium from his counterpart. Yet despite this conflict, a third party's "mere" cheap talk significantly influenced the players' behavior. Thus, if coordination problems of the kind modeled by the Hawk-Dove game are common, and if law tends to draw attention to the outcome it prescribes, then law works, in part, by creating a focal point. Sanctions and legitimacy do not exhaust the mechanisms by which law influences behavior.

More specifically, we tested how certain features of cheap talk contribute to its ability to influence behavior. Most of the expressive power we discovered exists in the most minimal expressive condition we tested: when an explicitly random mechanical device "points to" a

[28] The apparent marginal increase did not reach conventional levels of statistical significance.

symbol of one or another equilibrium. Adding the component of intentionality by having a randomly selected leader deliver the message did not reliably enhance the influence of the message. But adding a minimal form of legitimacy, by using a merit-based process for selecting the leader who delivers the message, did reliably enhance its influence. Finally, we find that subjects are quick to equate "fairness" with an individual's playing Dove when the message so indicates.

The experiment we report represents only an initial effort to test the focal effects of law. Although the experimental setting is highly stylized, the method is highly appropriate for a first test of the law's expressive influence, because it is so difficult in the real world to separate that influence from the influence of sanctions and legitimacy. Moreover, the use of experimental methods allows us to manipulate precisely the source of influence on behavior (even isolating individual components of expressive influences), and therefore to make strong causal inferences about the influence of expression on behavior. Nonetheless, our experimental results leave open substantial questions for future research. One might test the robustness of the basic findings in divergent strategic settings – different games, payoffs, information sets, etc. One could usefully test whether ostension works merely through primary (unreflective) salience or because it makes players form new expectations about what the other player will do. And it would be productive to introduce additional components of legal expression. In particular, one might seek to test whether the ostensive influence we identify remains powerful when compared to leaders endowed with a stronger form of legitimacy.

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